In response to: Method of electronic health record documentation and quality of primary care

We read with interest the article by Linder, Schnipper, and Middleton comparing dictation, free-text typing, and structured data entry to quality outcomes. The authors conclude that using dictation appeared to provide a lower quality of care, but that conclusion seems unsupported by the reported results.

Most importantly, the authors themselves note that most of the differences found were not actually quality of care or clinical outcome measures. The authors write that ‘even if documentation style were only associated with better documentation quality, a complete and accurate record is important to demonstrate high-quality care and inform clinical decision support and population management.’ However, the methodology states that text notes were not used for quality assessment, so the ‘missing’ data elements might have been just as completely and accurately documented in the dictated or typed narrative, or possibly even more so. The study methodology is such that a physician who documented a quality measure via dictation was only given credit for that work if the physician also manually re-entered the same data into the structured fields of the electronic health record (EHR).

Based on the methods described and results reported, one cannot conclude that dictation appears to provide a lower quality of care or even that dictation appears to provide a lower quality of documentation. The authors note that physicians who utilized structured documentation were the least satisfied, and saw half as many patients as those who dictated. They also recognized that ‘advanced NLP’ (natural language processing) might remedy most of their concerns. NLP could be used today, in a properly constructed validation workflow, to extract structured data from a dictation and populate the EHR data fields while retaining the richness of the narrative, maximizing physician satisfaction, and increasing physician efficiency and productivity. However, they also write, ‘Until large scale NLP can produce structured data from dictated and free text reports, structured data entry will be an essential input to both clinical decision support and increasingly detailed quality measurement’—suggesting that large scale advanced NLP does not yet exist. This assertion is unsupported by citations, and a significant body of literature suggests otherwise. Although NLP is not perfect, neither is structured data entry—especially if it is not adopted widely. For example, the Linder article reported that structured data entry captured tobacco history in only 38% of cases. On the other hand, a relatively recent i2b2 NLP challenge showed that smoking status can be identified reasonably well from unstructured discharge summaries.

Finally, the authors state that ‘Even dictation with advanced NLP may not be ideal because it would limit physicians’ interaction with the EHR and clinical decision support.’ Speech recognition software integrated into the EHR workflow (directly or via context-sharing) and combined with real-time or near-real-time NLP would enable clinicians to dictate while still providing the same level of physician interaction with the EHR and clinical decision support. This approach can even be combined with offline correction of the dictated report by medical transcriptionists to further enhance clinician satisfaction and efficiency. If the ability to support this model does not exist in EHRs today, the answer should not be to stop dictating but rather to build better EHRs.

Today the tail wags the dog as clinical workflows are increasingly designed to serve the EHR. It is time for the EHR to take its rightful place in a workflow that exists to serve clinicians as they provide care.

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